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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,110	08/07/2001	Kevin C. Carter	195/13921US03	9738

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EXAMINER

STEWART, ALVIN J

ART UNIT	PAPER NUMBER
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3738

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/924,110	Applicant(s) CARTER ET AL.	
	Examiner Alvin J. Stewart	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,8,9 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8,9 and 31-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 3, 5-7 and 10-30 are canceled

Response to Arguments

Applicant's arguments filed April 10, 2006 have been fully considered but they are not persuasive.

Regarding the “substantially cylindrical bone tunnel”, the Applicant’s representative discloses that the Campbell et al reference does not disclose a substantially cylindrical bone tunnel. First, the Examiner wants to point out that the Applicant is claiming a prosthetic device (apparatus) and is not claiming a method for installing a prosthetic implant. The phrase “for fixation in a substantially cylindrical bone tunnel” has been examined, however, the phrase has not been given patentable weight. Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). The word “substantially” has been interpreted broadly and does not provide any indication as to what range of specific activity is covered. The Examiner has to find only structure limitations claimed in the implant and it does not have to find the method that the patient’s bone is bore to make the bone tunnels. The Examiner has to find structure limitations that are capable of being inserted through a substantially cylindrical tunnel and because the bone pieces (23 & 24) have a cone shape then the bone pieces are capable of being inserted through a bone tunnel, as long the tunnel is the same or bigger than the wider part of the bone piece. Additionally, the Applicant’s representative mentions that the meaning of the word “tunnel” is a passageway that has two open ends. The

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Examiner disagrees with the Applicant's representative opinion. In the Merriam-Webster Dictionary the meaning of the word "tunnel" is: --- a hollow conduit or recess; a covered passageway; a subterranean gallery (as in a mine)---. Nowhere in the broadest definition of the word "tunnel" "in the Merriam-Webster Dictionary" disclosed a passageway having two open ends. For the above reasons, the Examiner believes that the Campbell reference clearly reads of a tunnel because it discloses a hollow conduit and also discloses a covered passageway. Finally, for example coal mines comprise a plurality of tunnels and most of those tunnels do not disclose two open ends.

With regard to the method step recitation in claim 1, "for fixation in a substantially cylindrical bone tunnel", it is noted that the method of implanting the device does not germane to the issue of patentability of the device itself. Therefore, this limitation has not given patentable weight.

Regarding the transition word "consisting essentially of", the Examiner disagree with the Applicant's point of view. As disclosed in the previous Office Action, the phrase "consisting essentially of" is as equivalent to "comprising: for the above reasons the Examiner maintains the rejection (see below).

A consisting essentially of claim occupies a middle ground between closed claims that are written is a consisting of format and fully open claims that are drafted in a comprising format. *PPG Industries v. Guardian Industries*, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). See also *Atlas Powder v. E.I. duPont de Nemours & Co.*, 750 F.2d 951, 137 USPQ 893 (CCPA 1963); *Water Technologies Corp. vs. Calco, Ltd.*, 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988). For the purpose of searching for and applying prior art under 35 U.S.C.

102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.” *See e.g. PPG, 156 F. 3d at 1355, 48 USPQ2d at 1355.*

Regarding the new limitation “for accommodating an interference screw” has been examined, however, the phrase has not been given patentable weight. The Applicant’s representative has not positively claimed the interference screw. The claim is only disclosing a groove along the length of each block that is capable of accommodating an interference screw.

Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969).

Claims are being treated as product by process claims. In accordance with MPEP 2113, these claims are not limited to the manipulations of the recited steps, only the structure implied by the steps.

Regarding the word “dowel”, the Examiner disagrees with the Applicant’s representative point of view. The meaning of the word “dowel” (as mentioned by the Applicant’s representative) in the Merriam-Webster Dictionary is: --- a pin fitting into a hole in an abutting piece to prevent motion or slipping---. Campbell clearly discloses a pin (the tapered bone blocks 23 & 24) capable of being inserted into a tunnel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 8, 9 and 31-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al US Patent 5,067,962 in view of McGuire US Patent 5,562,669.

Campbell et al discloses a bone tendon bone graft comprising two bone plugs (23 & 24) connected by a tendon (16). The bone plugs are shaped in a dowel (see Fig. 3), comprise exterior, interior surfaces, having a groove (25 & 26). Finally, the bone plugs are made of xenograft material (see abstract).

Campbell et al discloses the invention substantially as claimed. However, Campbell et al does not disclose a groove along its length.

McGuire discloses first and second bones having a plurality of longitudinal grooves and connected to each other by a graft ligament. Additionally, McGuire is capable of being pulled through a bone tunnel, can be utilized bi-directionally and the bone block is a cylindrical dowel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a longitudinal groove along the length of the bone blocks in order to insert an interference screw and connect the graft to the patient.

Regarding claim 9, the threads can be done by the insertion of the interference screw.

Regarding claim 31, McGuire discloses bone blocks capable of been utilized bi-directionally (see Figs. 1, 4a and 4b).

Regarding claims 34 and 37, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the shape of the Campbell et al reference by having a cylindrical shape or square cross section because Applicant has not disclosed that the cylindrical shape provides an advantage, is used for a particular

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purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with taper shape of the Campbell et al reference because it will perform equally the same.

Therefore, it would have been an obvious matter of design choice to modify Campbell et al reference to obtain the invention as specified in claim 34.

Regarding claim 35, Campbell et al disclose the claimed invention except for a cylindrical dowel diameter of 9 through 12mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the diameter of the Campbell et al reference with the optimum value of 9 through 12mm, since it has been held that finding an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 571-272-4760. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ALVIN J. STEWART
PRIMARY EXAMINER
Art Unit 3738

January 11, 2007.